USPTO IAP21
APR 10 2007
PATENT & TRADEMARK OFFICE

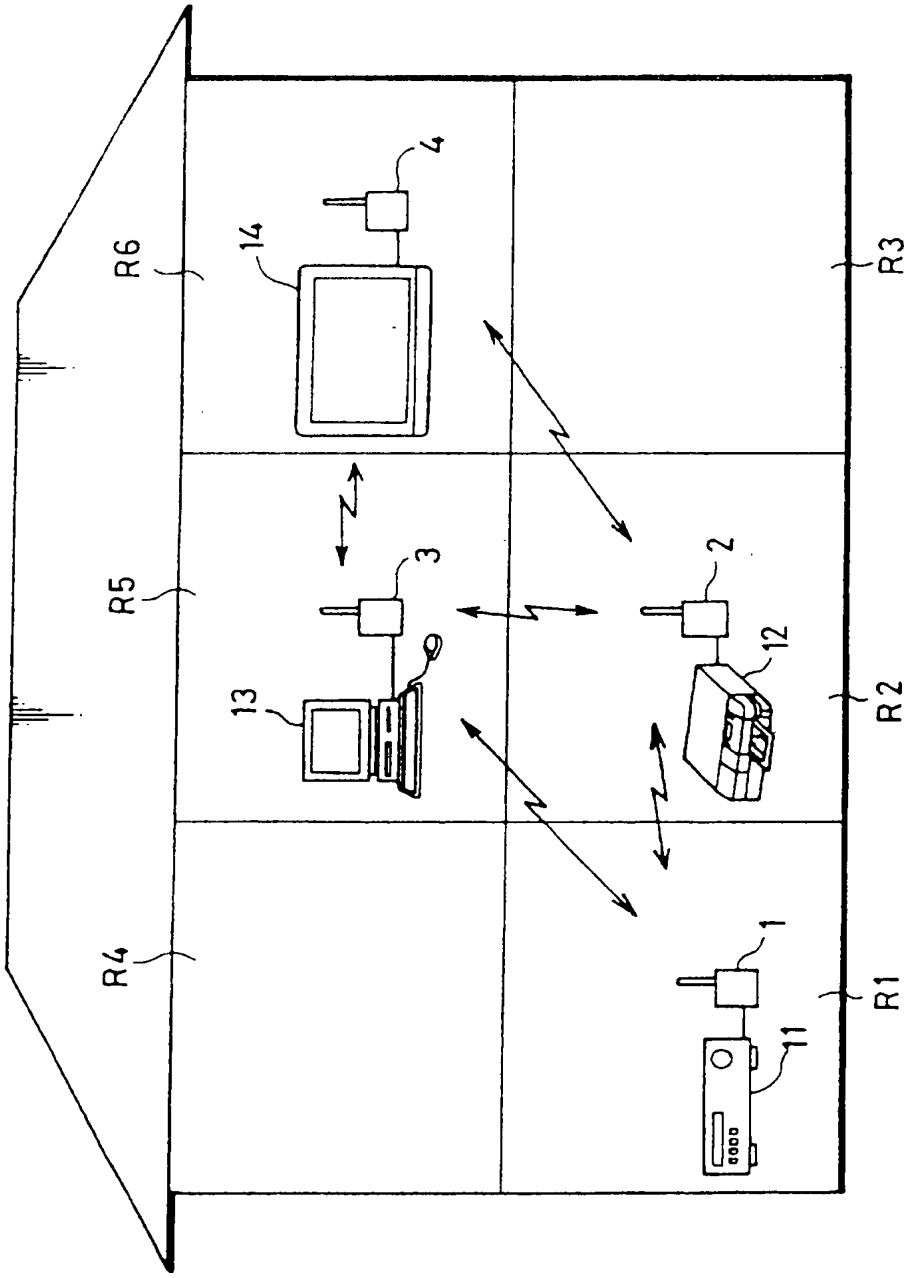


FIG. 1

FIG. 2

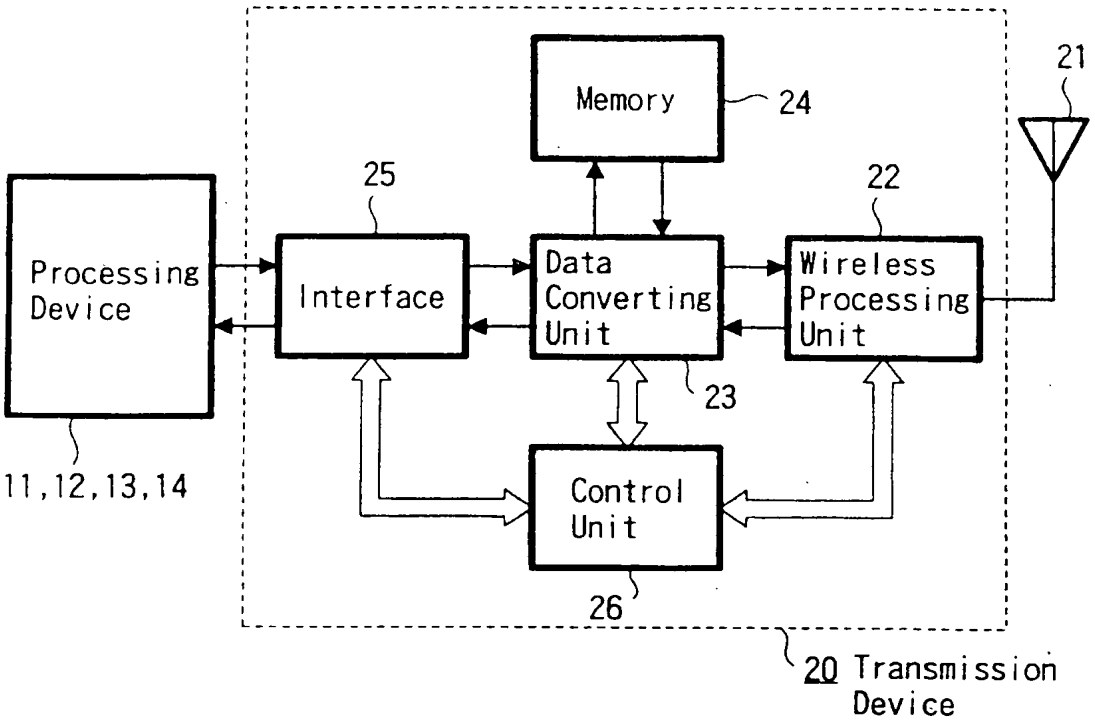

Memory
24
21
25
22
Processing Device
Interface
Data Converting Unit
Wireless Processing Unit
23
11,12,13,14
Control Unit
26
20 Transmission Device

FIG. 3

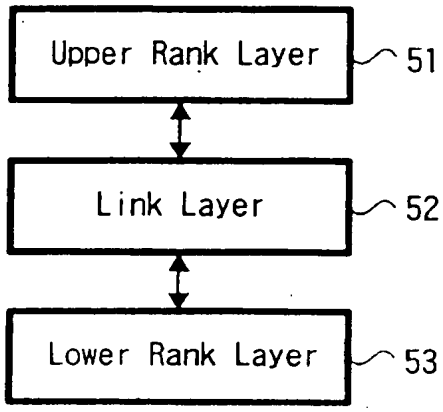

Upper Rank Layer
51
Link Layer
52
Lower Rank Layer
53

FIG. 4

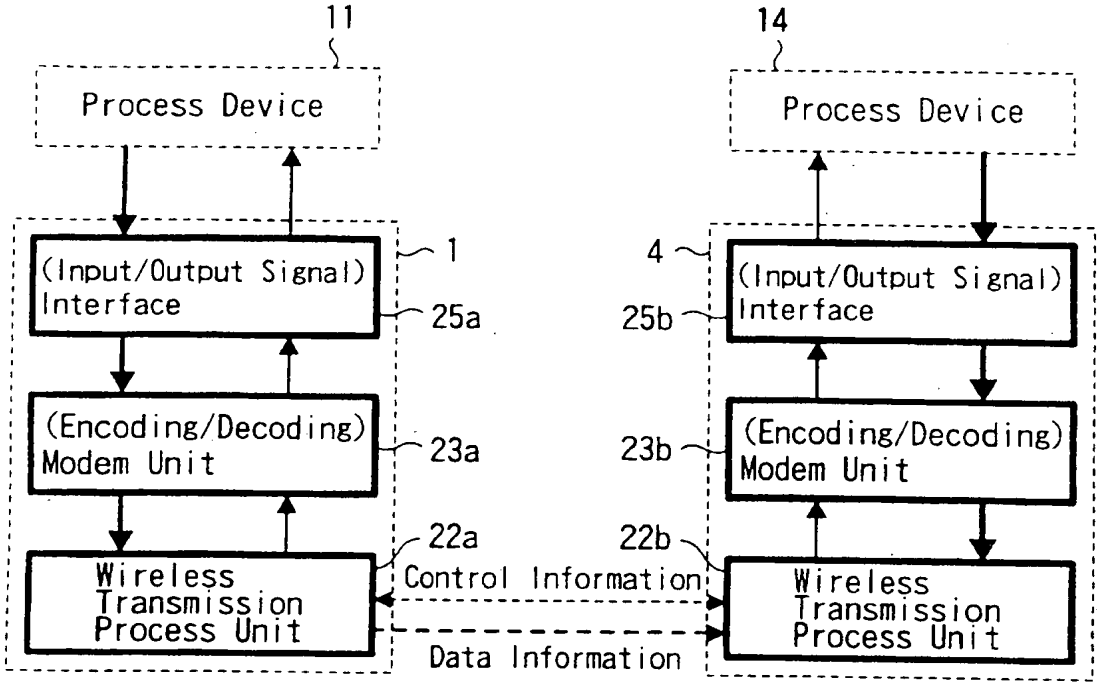

11
Process Device
(Input/Output Signal) Interface
1
25a
(Encoding/Decoding) Modem Unit
23a
22a
Wireless Transmission Process Unit
Control Information
Data Information
14
Process Device
4
25b
(Input/Output Signal) Interface
23b
(Encoding/Decoding) Modem Unit
22b
Wireless Transmission Process Unit

FIG. 5

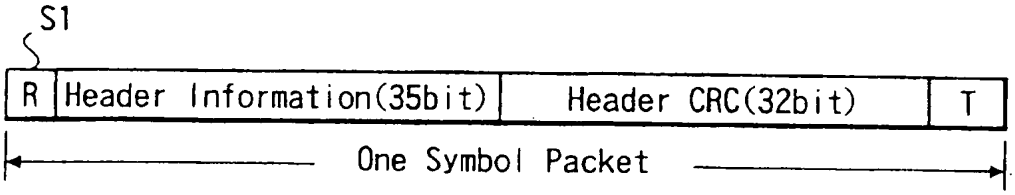

S1
R
Header Information(35bit)
Header CRC(32bit)
T
One Symbol Packet

FIG. 6

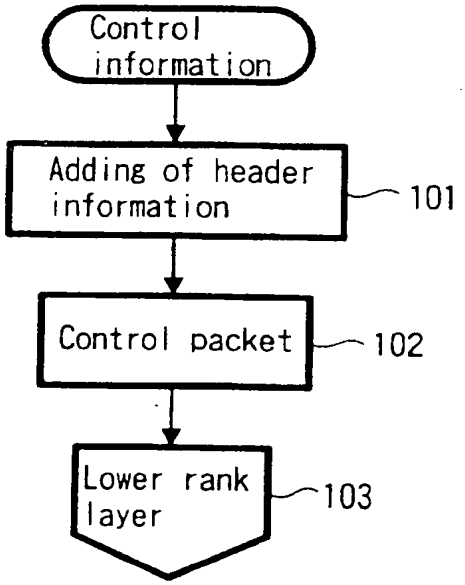

Control information
Adding of header information
101
Control packet
102
Lower rank layer
103

FIG. 7

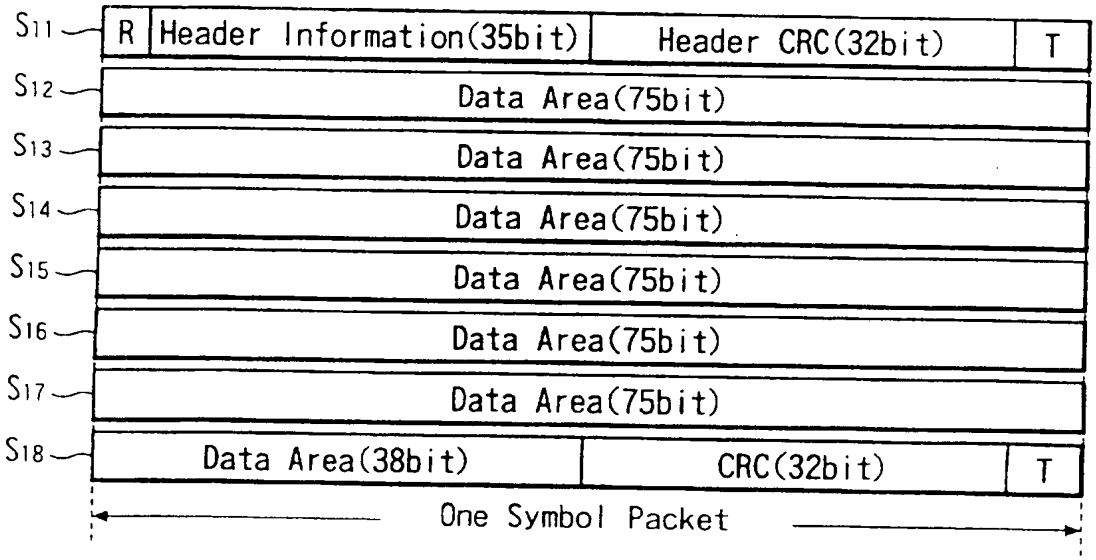

S11
R
Header Information(35bit)
Header CRC(32bit)
T
S12
Data Area(75bit)
S13
Data Area(75bit)
S14
Data Area(75bit)
S15
Data Area(75bit)
S16
Data Area(75bit)
S17
Data Area(75bit)
S18
Data Area(38bit)
CRC(32bit)
T
One Symbol Packet

FIG. 8

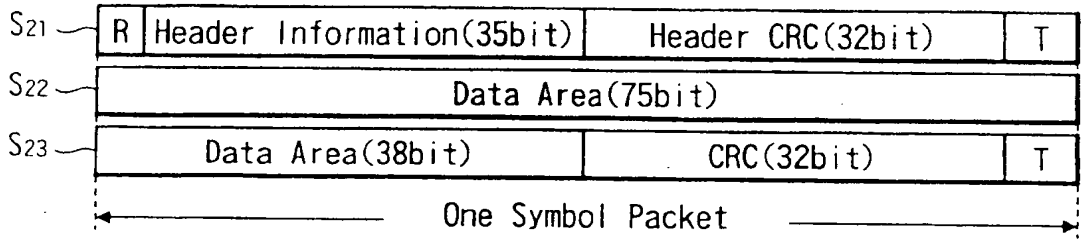

S21
R
Header Information(35bit)
Header CRC(32bit)
T
S22
Data Area(75bit)
S23
Data Area(38bit)
CRC(32bit)
T
One Symbol Packet

FIG. 9

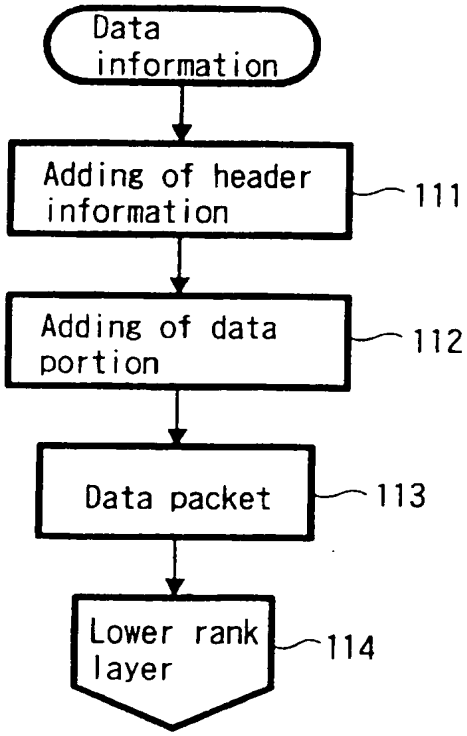

Data information
Adding of header information
111
Adding of data portion
112
Data packet
113
Lower rank layer
114

FIG. 10

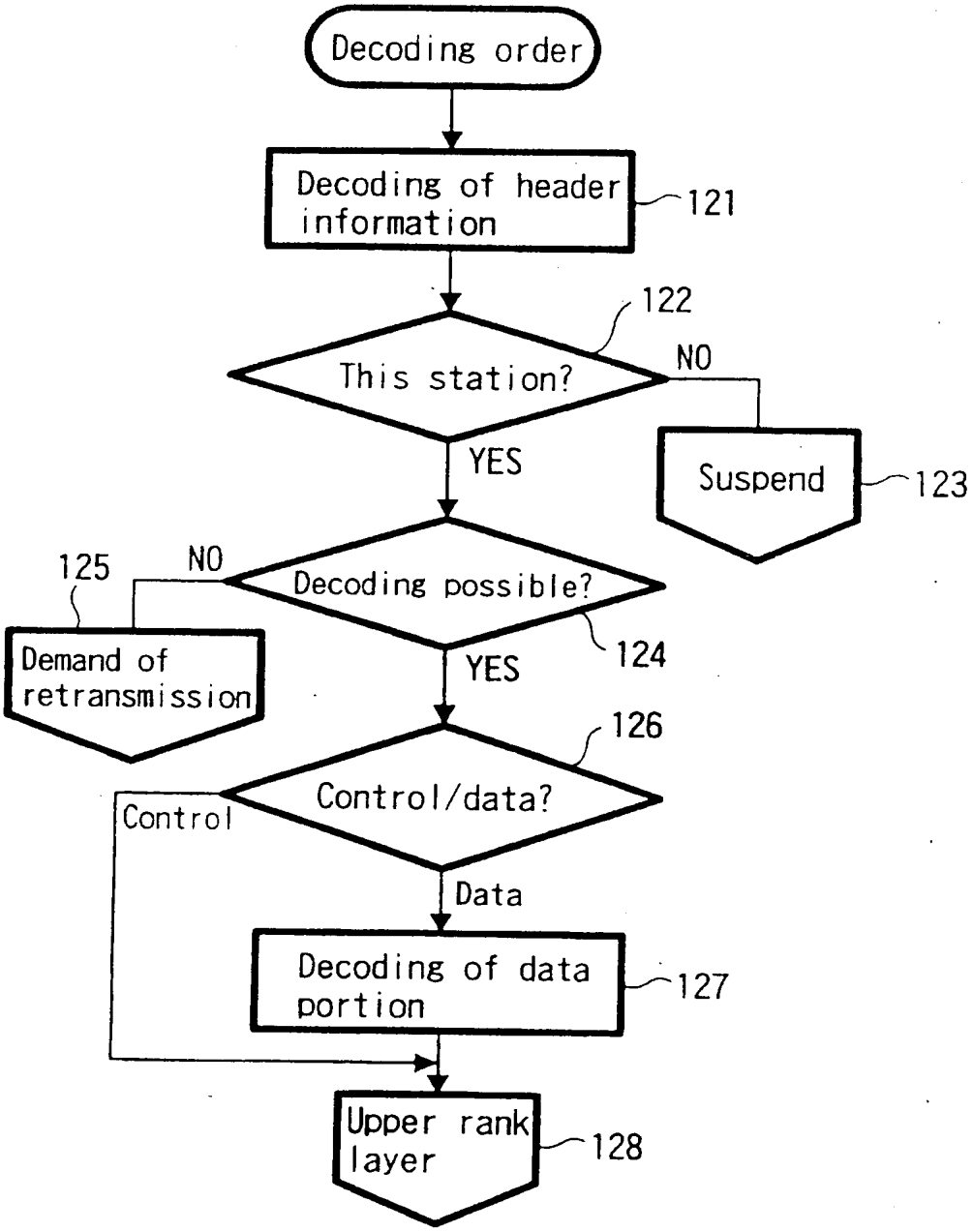

Decoding order
Decoding of header information
121
122
This station?
NO
Suspend
123
YES
125
NO
Decoding possible?
124
Demand of retransmission
YES
126
Control/data?
Control
Data
Decoding of data portion
127
Upper rank layer
128

FIG. 11

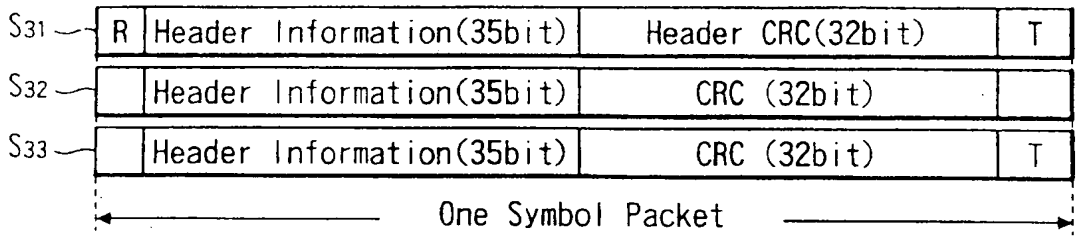

S31
R
Header Information(35bit)
Header CRC(32bit)
T
S32
Header Information(35bit)
CRC (32bit)
S33
Header Information(35bit)
CRC (32bit)
T
One Symbol Packet

FIG. 12

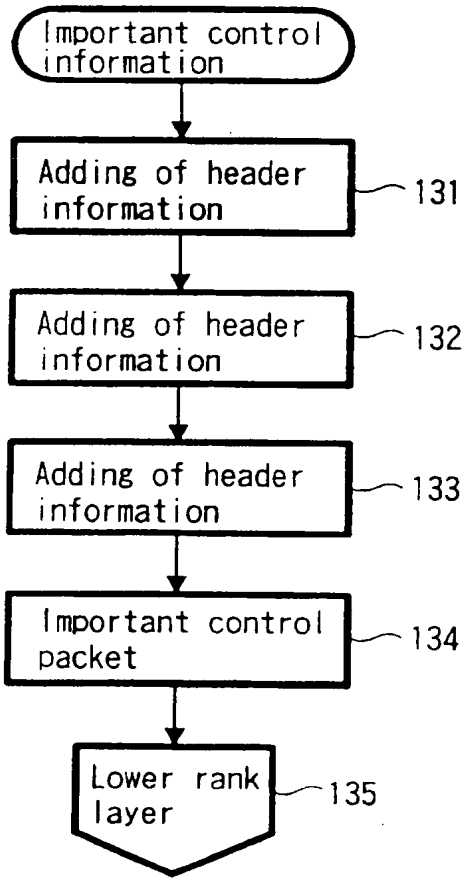

Important control information
Adding of header information
131
Adding of header information
132
Adding of header information
133
Important control packet
134
Lower rank layer
135

FIG. 13

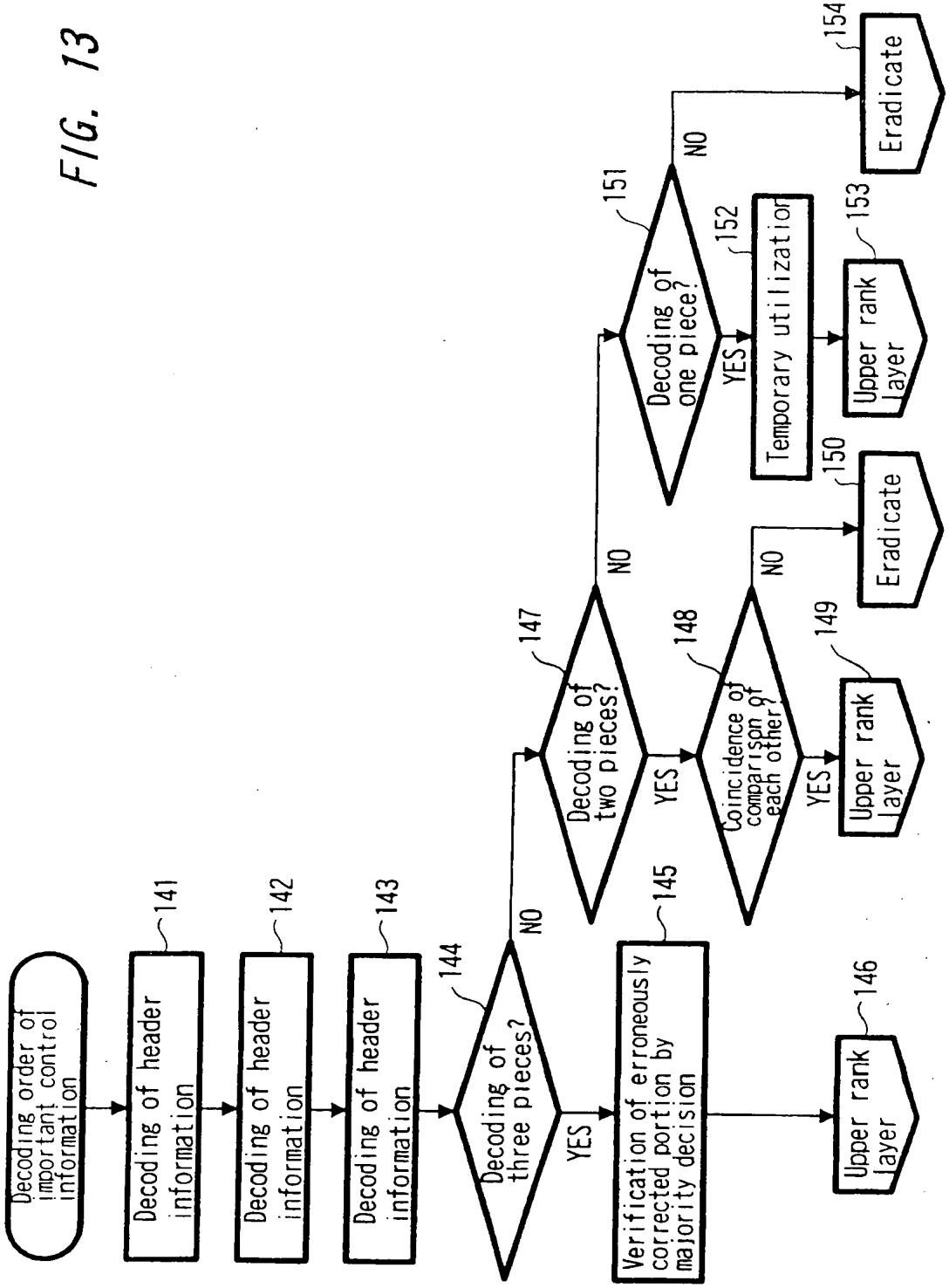
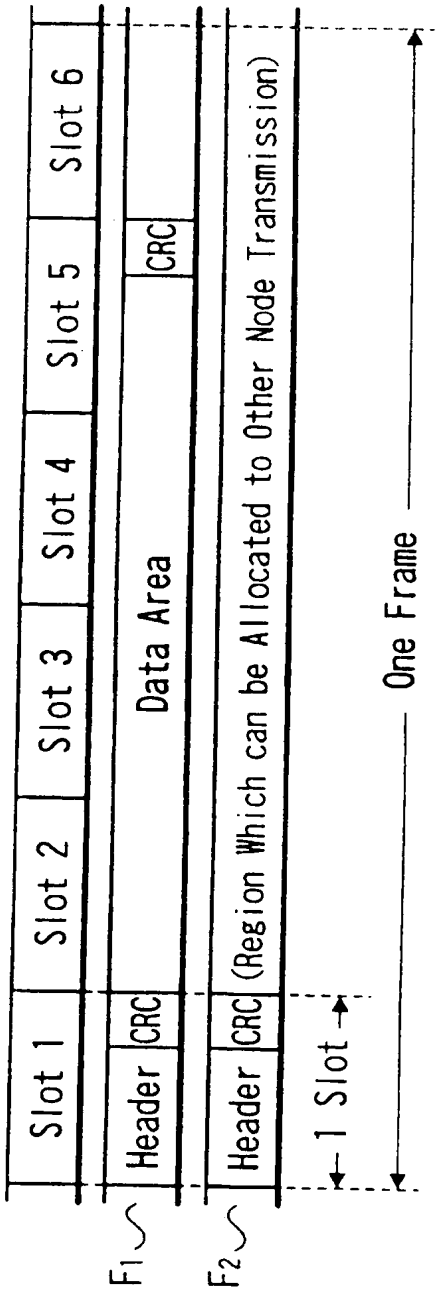

Decoding order of important control information
Decoding of header information
141
Decoding of header information
142
Decoding of header information
143
Decoding of three pieces?
144
YES
NO
Verification of erroneously corrected portion by majority decision
145
Upper rank layer
146
Decoding of two pieces?
147
YES
NO
Coincidence of comparison of each other?
148
YES
NO
Upper rank layer
149
Eradicate
150
Decoding of one piece?
151
YES
NO
Temporary utilization
152
Upper rank layer
153
Eradicate
154

FIG. 14


Slot 1
Slot 2
Slot 3
Slot 4
Slot 5
Slot 6
Header
CRC
Data Area
CRC
F1
Header
CRC
(Region Which can be Allocated to Other Node Transmission)
F2
1 Slot
One Frame